MEDICAL PATHOLOGY AND THERAPEUTICS, AND PRACTICAL MEDICINE.

15. *Changes in the Brain in Typhoid Fever and Traumatic Inflammation.*—Dr. L. Popoff has investigated these changes under the direction of Recklinghausen, at the Pathological Institute at Strassburg, and of course the results have the high authority of the latter. It may be remembered that there are in the brain very numerous spaces for the circulation of serous fluid outside the bloodvessels. Besides those around the bloodvessels, there are spaces around the ganglion cells, the nerve-fibres, and elsewhere. Now, in typhoid fever, all these spaces contain an excess of contractile cells, derived, as the author believes, from the enlarged spleen, closed follicles of the intestine, and medulla of bone. These cells (wander cells) exist in all the spaces mentioned, and even penetrate into the substance of the ganglion cells. But besides this there are changes in these latter structures themselves which are evidences of increased activity—namely, division of the nuclei and of the cells. These facts all lead to the conclusion that we have here an inflammatory process, and they form a physical substratum for the nervous symptoms of typhoid. The author finds in artificially induced traumatic inflammation of the brain in animals processes in many respects similar to those detailed above. There is a similar penetration of the wander cells into the ganglion cells, and the same process of division in the latter. The chief difference is that in typhoid there are wander cells in the serous spaces before distinct changes are visible in the ganglion cells, the reason apparently being the abundance of such cells in the blood. Another difference is the presence of the compound granular corpuscles in traumatic inflammation. This leads on to the detail of results obtained on producing inflammation by injecting pigments such as vermilion and Indian ink into the brain. If this is done, and the brain examined in a comparatively short time, the granules of pigment are to be found in the ganglion cells. In fact, they are hardly anywhere else; these cells seem to have picked them up, and this appears to be evidence that the ganglion cells are active contractile bodies. But after the inflammation has progressed, there appear the so-called compound granular corpuscles, and the pigment is now found in them. This seems to lead to two conclusions—the compound granular corpuscles are contractile, as some other authors have already stated—and they are descended from the ganglion cells. The ganglion cells contained the pigment in the earlier stages, and it is now found in the granular corpuscles, so it is to be inferred that the latter are derived from the former—a conclusion which is rather unexpected. The author compares with the conditions found in these affections, that observed in sclerosis of the brain. In the cases described above, the proper nerve cells are specially involved, in sclerosis it is the connective, or interstitial substance, the neuroglia and its vessels. The ganglion cells suffer secondarily.—*Glasgow Med. Journal*, Jan. 1876, from *Virchow's Archiv*, vol. iii. pts. 3 and 4.

16. *The Pathology of Sunstroke.*—Dr. Arndt has published a communication on this subject which is interesting, and contains much which is very suggestive. He gives a description of a march of troops on a hot day in July, 1870, with deficient shelter and no supply of water. There occurred numerous cases of sunstroke, of which no less than seven died. *Post-mortem* examination was only obtained in three of them, and even in these the conditions for observation were not perfect. An abnormal paleness was found in all the organs, the brain especially being as good as empty of blood. The paleness depended on emptiness of the smaller vessels and capillaries, there being an overfilling of the larger vessels in many organs, which amounted to rupture in some, so that there were ecchymoses on the pericardium, endocardium, and pleura. This overfilling of the larger vessels appears to have induced some observers to have believed that there is a hyperæmia of the organs in sunstroke; the blood, issuing from these on to the cut surface, gives an erroneous impression of congestion. At any rate, there was anæmia with swelling and

œdema of the brain, liver, and kidneys. The substance of the brain was moist, and in some the ventricles were overfilled. In the liver, kidneys, voluntary muscles, and heart there were appearances usually ascribed to parenchymatous inflammation, namely, cloudy swelling. This condition was not detected in the brain, but there it is difficult to distinguish, and, judging from the œdema and symptoms, it probably existed. Now, such a general cloudy swelling as this is met with in acute infective fevers, where the patients have died at the acme of the disease with high temperature. It is ascribed by some to the altered condition of the blood in these fevers; but the author believes it to be due, both there and in sunstroke, to the high temperature. The heated blood irritates the tissues, and induces this form of inflammation in the various organs involved. For there may be great alteration in the blood in these diseases, but if the temperature keeps moderately low, there seems to be little parenchymatous inflammation. Then, both in these fevers and sunstroke, the symptoms are much more related to the temperature than to the alteration of the blood. The symptoms of sunstroke are described in the various degrees of the affection. It is unnecessary to dwell on them here. There is at first a rise in temperature, with sweating, thirst, and feeling of exhaustion. These all increase in intensity if the case goes on, till a temperature of 44° C. (111° F.) may be reached. The skin is dry and burning; there is a feeling of impending death, violent palpitation and oppression in the chest, and so on. In the lesser degrees the patient may recover rapidly and completely; there is apparently no definite organic change in the organs. But in the higher degrees, the brain seems to be the seat of lesions which may have a permanent effect on its functions. It is to be presumed that the nature of these lesions is inflammatory, and the fact that persons who have had sunstroke are prone to alterations of their mental condition, and even to mental diseases, is an indication of the permanency of these changes. It is to be noted that cases of infective fever, when the temperature has been very high, are said to have a similar tendency to nervous sequelæ.—*Glasgow Med. Journal*, Jan. 1876, from *Virchow's Archiv*, vol. lxiv. pt. 1.

17. *Thrombosis of the Cavernous Sinuses.*—Dr. Dowse read before the Clinical Society of London (Jan. 14) notes of a remarkable case of thrombosis of the cavernous sinuses. The patient was a robust, well-built adult, who received a blow on the occiput by being tripped up. He was slightly stunned, but able to walk home. No immediate cerebral symptoms followed for three days, when severe headache set in. The attacks of headache were varied by seizures of faintness and shivering; he complained also of perversions of the sense of taste. The day before he came under Dr. Dowse's care his vision became cloudy, and in a few hours totally lost. The other special senses were good; cranial and spinal nerves normal; the pupils were dilated; the optic disks were swollen, and patches of retinal hemorrhage were discovered, the veins being large and tortuous. Death supervened upon an attack of erysipelas of the scalp, and the day before death it was noted that there were paraplegia and coma, but no convulsions or rigidity; the temperature rose to 104.2°, and the pulse to 160. No fracture of the skull was detected after death, but both cavernous sinuses were found completely occluded by fibrous clot; the central ganglia were healthy; there was recent hemorrhage into the right anterior cerebral lobe, which contained a clot surrounded by punctiform hemorrhages; at the base of the brain was a protrusion of cerebral substance, apparently due to the presence of the clot. Dr. Dowse further referred to the results of the microscopical examination of the brain, and remarked upon the probable greater frequency of thrombosis of the cerebral sinuses than was supposed. Hemorrhage into the anterior lobe was rare.—*Lancet*, Jan. 22, 1876.

18. *Embolism of Right Posterior Cerebral Artery, with Yellow Softening of the Occipital Lobe, producing Temporary Blindness; Left Hemiplegia, Uncontrollable Movement of the Right Limbs, and Rolling Tendency; Double Optic Neuritis; Death from Ulcerative Endocarditis.*—Dr. Broadbent read to the Clinical Society of London (Jan. 28) the particulars of this case.

The patient, a young man aged 19, had suffered three years previously from acute rheumatism. Ten days before his admission, he suddenly became blind, and had great pain in the head. Five days later, vision having returned, he lost the use of his left limbs, while the right arm and leg were continually in motion; and, unless restrained, he rolled over and over towards the left, falling out of bed and bruising himself severely. The left hemiplegia and uncontrollable movements of the right limbs continued when he was admitted; the hemiplegia not being absolute, but accompanied by slight rigidity and very considerable impairment of sensation. The patient took no notice of persons or object, but answered questions, and put out the tongue on being urged. His pulse was variable, 120 to 160 or more. Temperature in the right axilla, 99.2 deg. in the left, 100.6 deg. A loud mitral systolic murmur was present. The bowels were confined, and, when opened, the feces and urine were passed in bed. A dose of three grains of calomel was given, and two grains of carbonate of ammonia with two drachms of infusion of digitalis every two hours. Chloral also was given at night. He was ordered a diet of milk and beef-tea, with four ounces of brandy. There was gradual improvement; and, three days after his admission, an ophthalmoscopic observation, previously attempted in vain, was obtained, and the disks were found to present the appearances of marked ischæmia. The pulse was now 108, soft, short, and strikingly dicrotous. A day later, the pulse was 88 and more full. The temperature was still nearly a degree higher in the left (100) than in the right (99.2) axilla. Slight paralysis of the left external rectus of the eye was observed. At the end of a fortnight's stay in hospital, the right limbs were quiet, and there was considerable return of power and sensation in the left side. His speech was rather slow, but there was no obvious impairment of the intellect. Notwithstanding this, however, he not only passed his feces in bed, but threw them about and bedaubed himself and the bedclothes without any regard to decency. The optic ischæmia was marked, but vision was good. The temperature of the right axilla was 99.3; of the left, 100. At the end of three weeks, he passed his excretions naturally. After five weeks, he was up and about, eating well, but pale, and still complaining a little of headache. Impairment of power and of sensation in the left limbs was still perceptible. The optic neuritis was subsiding. Distant vision was good, but small print was not easily read. A systolic mitral murmur was heard. The temperature was still never below 99 deg.; usually 100 deg.; it was now equal on the two sides. But for this elevation of temperature, the patient would have been allowed to leave the hospital. Soon afterwards, however, there were symptoms of splenic embolism, and later of ulcerative endocarditis; and he died from this, four months after admission. On *post-mortem* examination, with ulcerative endocarditis and numerous recent embolisms, there was found softening of the occipital lobe of the right hemisphere from the posterior cornu of the ventricle downwards, and the branch of the postcerebral artery entering the calcarine fissure was occluded and lost in adhesions. It was considered probable by Dr. Broadbent that originally the posterior cerebral artery itself had been blocked up, and not only this branch. The interesting points in the case, on which comments were made, were the temporary blindness, the agitation of the right limbs and rolling tendency, the usual association of loss of sensation and of double optic ischæmia with embolism of a cerebral artery, and the remarkable indifference to decency persisting when the intellect was apparently good.

Dr. Hughlings Jackson thought this the most valuable case of cerebral embolism he had heard of. He had never seen the posterior cerebral artery blocked except in cases of syphilis. He had never seen optic neuritis with cerebral softening; but then he had never met with softening in the posterior lobe so long continued. He had seen optic neuritis in cases where there was no cerebral softening. The patient's sight was good for distance, which was a common condition with optic neuritis. The patient's intellect must have been degraded; but with left hemiplegia he thought the intellect was more frequently affected than with right hemiplegia. Diseases of the left posterior lobe do not frequently cause intellectual defects. Had the patient disagreeable sensations which he referred to the epigastrium? because the centres of care, remorse, etc., were referred to the posterior lobe.—*Brit. Med. Journal*, Feb. 5, 1876.

19. *Paraplegia from Obliteration of the Abdominal Aorta by an Embolus.* —M. DENOS read before the French Academy of Medicine (Jan. 4, 1876) an interesting note of a case of this kind. The subject of it was a man treated at La Pitié for disease of the heart, followed by left hemiplegia and dysentery. This man, after suffering severe pain in the left thigh since the previous evening, was suddenly taken with complete paraplegia and paralysis of the bladder and coldness of the lower extremities. M. D. diagnosed paraplegia from obliteration of the abdominal aorta by an embolic clot. This was confirmed on the autopsy. Besides lesions of the heart and lungs, there was found above the termination of the abdominal aorta a clot 25 millimetres long, 3 millimetres antero-posterior diameter, and 2 centimetres transverse diameter. This clot extended into the two primitive iliacs, and on the right side into the femoral as far as about two centimetres of the popliteal space; on the left side not quite so far. These clots were of a grayish-white colour, homogeneous, and adherent to the parietes of the vessels.—*Gazette Hebdom.*, Jan. 7, 1876.

20. *Appearance of Paralysis on the side of a Lesion of the Brain.*—Dr. BROWN-SÉQUARD, in a lecture on this subject (*Lancet*, Jan. 29, 1876), gives the following as his conclusions from the facts and reasonings adduced by him:—

"1. It is wrong to conclude from the apparition of paralysis, when there is disease in the brain, that the loss of movements depends upon the loss of function of conductors or centres employed by the will in the production of movements.

"2. That if there is any decussation of voluntary motor conductors anywhere in the base of the brain, it is not owing to the absence of such a decussation that direct paralysis sometimes appears.

"3. That it is owing to an irritation that one-half of the brain is capable, when diseased, of producing paralysis either in the corresponding half of the body or in the opposite one."

21. *The more Common Forms of Enlargement of the Lymphatic Glands.*—Dr. J. WARRINGTON HAWARD, in an instructive article (*British and Foreign Med. Chir. Rev.*, Jan. 1876) remarks: "It has been so much the custom to regard enlargement of the lymphatic glands as the special characteristic of scrofula, that many glandular swellings, having no relation whatever to that disease, are frequently classed and treated as scrofulous. This is especially the case with regard to swellings of the cervical or submaxillary glands; yet it is certain that the majority of these enlargements are of a local and not of a constitutional character. The epithet 'scrofulous' is, in fact, often applied very loosely, and seems sometimes to be used rather as implying some mysterious influence or peculiarity, than as indicating that a person is affected by a definite disease. Yet the symptoms of scrofula are sufficiently well defined, and enlargement of the lymphatic glands is but one, and that not a constant one, of these; and it is no more reasonable to call a child scrofulous because it has enlarged or even caseous cervical glands than it is to apply the term to a chronic inflammation of a joint in an otherwise perfectly healthy child, or than it would be to call a person syphilitic, because he had a periostitis of his tibia. An examination of any considerable number of cases of enlargement of the superficial lymphatic glands, will show the majority of these to have a local origin. The glands most often seen swollen are the cervical and submaxillary, and the greater number of such swellings depend upon inflammation of the scalp or gums. Slight cases of eczema, or impetigo capitis are exceedingly common in children, and are very frequently the cause of enlarged cervical glands; but the eruption being but trifling is often overlooked, and the surgeon's attention asked only to the condition of the glands. So also inflammation of the gums during teething, stomatitis, ulceration of the throat, and

disease of the middle ear may give rise to swellings of the associated lymphatic glands. Glands affected in this way may attain a considerable size, but as a rule will recover their natural condition on the removal of the irritation. Usually several glands are affected; they are not distinctly isolable from the surrounding cellular tissue, nor are they freely movable; they are, moreover, painful and tender; sometimes they suppurate. A peculiarly acute and painful inflammation of the posterior cervical lymphatic glands is occasionally seen in connection with scalp wounds; this usually runs a rapid course, and subsides without the formation of matter. Doubtless if any of the above-named irritations occur in a scrofulous person, the glandular enlargement is prone to show an increase and a persistence, out of proportion to the severity or duration of the exciting cause, and thus it may pass on to caseation or necrosis; but this is by no means necessarily the case, for the lymphatic vulnerability varies greatly in scrofulous persons. Caseation must not be looked upon as the distinctive mark of scrofula, for almost any chronic enlargement of a lymphatic gland may result in caseation, and certainly this process may occur in an otherwise perfectly healthy subject. A single caseous, and in some parts cretaceous, gland was removed five years since from the neck of a boy who was the picture of robust health, and who I know remains so at the present time, and has never shown the slightest trace of scrofula.

"Inflammation and chronic disease of a joint will cause indolent swelling of the associated lymphatic glands; and this in persons who are not in the least degree scrofulous. One of the earliest symptoms of disease of the hip-joint is often a slightly painful enlargement of the inguinal glands, and there are few cases of hip disease in which some swelling of these glands is not found. In disease of the cervical spine also, swelling of the posterior glands often occurs, and it is important to remember that the stiffness of the neck in such cases may depend, not upon the painful glands, but upon the joint disease. The glands do not increase very greatly in size, but will remain for months swollen to about the size of filberts, and slightly tender to the touch; and as the joint disease subsides, they regain their normal condition; excepting the tenderness, they precisely resemble the amygdaloid glands of syphilis. In many robust persons this condition of inguinal or axillary glands ensues upon any severe exercise of the arms or legs, such as rowing, or prolonged walking, and seems to be quite unassociated with any delicacy or weakness of constitution.

"The true scrofulous disease of the lymphatic glands is a slow and almost painless enlargement, usually of the superficial glands, and most commonly affecting those of the groin or neck. It commences simultaneously in several glands; these are at first soft, and surrounded by a little cellular swelling, so that the shape of the gland is not very well defined. As the enlargement increases, the glands become firmer and more defined, in this respect differing markedly from Hodgkin's disease, in which, by their growth, the glands become fused together. In the course of time caseation ensues, and goes on either to cretefaction or to softening and abscess. Suppuration is much more rarely seen in the deeply situated, than in the superficial glands; and when it does occur, takes place slowly and with scarcely any pain; there is but little disposition to pointing, and the matter is ill-formed and mixed with caseous débris. The skin often becomes extensively undermined and ulcerated, and thus result the unsightly scars and puckerings so often seen in scrofulous persons. An examination of a scrofulous gland reveals a general hypertrophy, with close packing of the cellular elements, leading, by a compression of its bloodvessels, to an anæmia, and consequent want of nutrition of its tissues. Fatty change soon ensues, and a subsidence of the swelling may take place; but usually the degenerated tissues either break down into cheesy material which eventually becomes calcareous; or suppuration takes place, accompanied by some little surrounding inflammation. Even if suppuration has occurred the abscess may not open, but may dry up, leaving only a caseous matter unabsorbed; but this is very prone to become the seat of residual abscess, and thus to cause subsequent trouble; so that an abscess having once formed, its evacuation is to be desired.

"In Hodgkin's disease the enlargement is usually at first confined to one set of glands, sometimes to a single gland. The affected glands can at first be felt firm and shot-like, and are perfectly defined and separable from the surrounding tissues. They are quite painless, and increase without any sign of inflammation. When somewhat larger, and while still firm, they closely resemble the syphilitic amygdaloid glands, and at this stage are quite indistinguishable from them. Growth, however, rapidly proceeds, and as the glands become larger, they also become softer and less defined, until they eventually become fused into one large lobulated mass, the skin over which remains unchanged. As the growth progresses, it insinuates itself amongst the neighbouring structures, and may spread, by continuity, a long distance from the point of origin before the system generally becomes infected."

The *treatment* of lymphatic glandular swellings must depend, Dr. H. states, upon the diagnosis. The simple enlargements depending upon neighbouring irritation will, if *left alone*, subside on removal of this cause, but " if the skin over them is irritated by the application of iodine, poultices, or blisters, they may be provoked, as one so often sees, into still further enlargement, or even suppuration. Nothing in therapeutics is more curious than the way in which some practitioners paint tincture of iodine over every imaginable kind of swelling; to some minds the mere existence of a tumour seems at once to suggest the local application of iodine, and to these, painting with iodine seems their refuge in all cases of doubtful diagnosis, as though changing the colour of the skin were supposed to affect the character of the growth beneath it. Unfortunately the staining is not the only harm done by such applications, for they inflame the skin, and thus keep up or increase the glandular irritation for the cure of which they are used, or render the parts unfit, for a time, for necessary operative treatment. An acute swelling of a single lymphatic gland may be sometimes rapidly cured by puncture. A narrow thin knife should be thrust into the centre of the gland and withdrawn, and the part then covered with a piece of cotton-wool; the pain and swelling at once and quickly subside."

22. *Ménière's Disease.*—M. Charcot, in an interesting clinical lecture reported by M. Bourneville (*Le Progrès Médical*, Dec. 11, 1875), relates two cases of Ménière's disease, or, as he prefers to call it, the vertigo of Ménière, which he entirely relieved by the persistent administration of sulphate of quinia continued in one case for nearly three months, and in the other for two months. He says he could relate numerous other cases in which great benefit resulted from the administration of the sulphate of quinia.

23. *Treatment of Epistaxis by the internal administration of Ergot.*—Epistaxis is sometimes difficult to arrest, especially in persons enfeebled by age, anemia, etc. Dr. G. St. George states (*Brit. Med. Journ.*, Jan. 1, 1876), that he has found the liquid extract of ergot very serviceable where liquor ferri chloridi, plugging, etc., have been tried without avail. He relates three cases illustrative of its efficacy.

24. *Treatment of Spasmodic Asthma.*—The efficacy of subcutaneous injections of morphia for the relief of spasmodic asthma, pointed out by Dr. Anderson (see No. of this Journal for January last, p. 271), is confirmed by Dr. McGregor Burns (*Practitioner*, Feb. 1876), and by Dr. G. Oliver (*Ibid.*). The latter, however, maintains that morphia and atropia combined are superior to morphia alone; the good effect is more speedy and complete, and they produce no depressing gastric disturbance. The frequent use of the injections does not, he asserts, appear to injure the general health, and relief is generally declared in five minutes in the form of comfortable sleep and quiet breathing. The most intense attack has given way in from fifteen to twenty minutes. He uses one-third of a grain of acetate of morphia combined with one-hundredth of a grain of sulphate of atropia.

25. *Treatment of Hooping-cough by Iodide of Silver.*—Dr. Robert Bell states (*Obstetrical Journal*, Dec. 1875) that he has treated over one hundred cases of pertussis with iodide of silver, and with uniform success. He gives

about one-eighth of a grain of the medicine three times a day. In almost every case the cough had lost the hoop by the end of four weeks, and was quite well in six weeks.

26. *Use of Saccharated Lime in Typhus Fever and other Complaints.*—Prof. CLELAND extols (*The Practitioner*, Dec. 1875) the advantages of saccharate of lime in fevers. "The two points," he says, "most necessary to insist on in the administration of this remedy are probably large doses and copious dilution. A teaspoonful of the pharmacopœial 'liquor,' given after meals, is necessary, in most cases, to develop its effects as a stomachic, and should be diluted in three or four ounces of water; but in cases in which there is foulness of the tongue from acute causes, much the best plan is to fill a tumbler with water, introduce as much of the solution of lime as can be added without giving a very disagreeable taste, and let the patient drink of the mixture *ad libitum*; and when one tumbler is finished let another be filled. Generally, I believe, in most cases in which there is great foulness of the tongue, this treatment will be found most advantageous. It is not suitable, however, when there is inflammation of the stomach, or great irritability indicated, for example, by central redness of the tongue, with sharp ragged edges. Attacks of bilious or gouty diarrhœa and British cholera yield with great rapidity to the free use of saccharated lime, and it is found exceedingly grateful by the patient on account of its alleviating the dry uncomfortable feeling in his mouth. It produces usually copious diuresis, a gentle perspiration, and relief from tormina, while the violence of the action of the bowels is quickly mitigated. There is never, however, the slightest constipation produced, the action of saccharated lime being slightly aperient, and even in some persons markedly so."

In all cases where there is a black, parched, and cracked tongue, like a cinder, with the teeth and limbs black with sordes, he has observed after the free administration of saccharated lime, that the tongue was moist the following day, and in a few days the black crust had entirely loosened and disappeared. In typhus fever it has become Prof. C.'s habit to give the lime in milk instead of water. "Given in this way it has the advantage of preventing that peculiar sensation in the mouth which is liable to follow the drinking of milk, and make it unsuitable for quenching thirst. Thus the patient is induced to take a certain amount of mild nutriment when he is most prostrate. It can scarcely be doubted that to this circumstance, as well as to the improvement in the whole length of the alimentary canal, indicated by the effect on the tongue, the benefits which I have observed to follow the free use of saccharated lime are to be imputed."

27. *Bromohydrate of Quinia in Malarial Fever.*—M. SOULEZ confirms (*Journal de Thérap.*, Dec. 11, 1875) the conclusions of M. Gubler (see No. of this Journal for Jan. last, p. 260) as to the special therapeutic properties of this preparation. From numerous observations he finds that not only has the bromohydrate of quinia succeeded when the sulphate had failed, but also that the former does not produce the quinia intoxication caused by the latter. It also results from the observations of M. S. that the bromohydrate of quinia taken in a suitable dose an hour before an expected paroxysm will prevent its occurrence. Owing to its greater solubility it may be more readily employed hypodermically than the other salts of quinia.—*Gaz. Hebdom.*, Feb. 18, 1876.

28. *Ergot of Rye as an Antipyretic in Enteric Fever.*—M. HAYEM has been making a trial of ergot of rye in cases of enteric fever, with the object of lowering the temperature. The results he has obtained have been very satisfactory, and its employment in this disease seems to him preferable to that of sulphate of quinia or of digitalis. Under the influence of ergot there is a much more rapid defervescence; and at the period of the acme, instead of there being a rise in the temperature chart, a plateau is obtained. In some cases in which the ergot was only given during the day, the evening temperature was not so high as the morning. The dose varied from thirty to fifty grains in the twenty-four hours.—*Dublin Journ. Med. Sci.*, Dec. 1875.

29. *Nélaton's Method in a Chloroform Accident.*—Mr. Lawson Tait states (*The Practitioner*, Feb. 1876), that, while performing Amussat's operation on a thin, delicate, and much exhausted patient, he suddenly found that the respiration, carotid pulsation, and heart-beat had ceased. He immediately inverted the patient, and directed his colleagues to imitate respiration by compressing the chest at intervals. The patient after a time revived, and Mr. T. is convinced that he was thus saved from the loss of his patient.

He adds: "Since July I have used nothing but anhydrous sulphuric ether for operations, and though it is far from being so convenient as chloroform or methylene ether, I think we are not justified in using any other anæsthetic, save in cases of young infants and pregnant women, amongst whom no chloroform accident has yet been recorded."

30. *Effects of Artificial Suppression of the Perspiration on the Animal Organism.*—Dr. N. Sokoloff remarks it is well known that when an animal is varnished over, so as to stop the perspiration, it speedily dies. The explanation of this occurrence, which obviously suggests itself, is, that some material, which is usually given off in the sweat, is retained and acts as a poison. This was Edenhuizen's theory, and he supposed that the deleterious substance was an amine base. Laschkewitsch, however, has recently stated that all is explicable on the theory of a vaso-motor paralysis, and consequent loss of heat by the animal. He believes that the vessels of the skin are widely dilated, and there is so much radiation of heat as to lower the temperature to a degree incompatible with life. The present author grants that there is a reduction in temperature before death, but finds no such dilation of the vessels of the skin. Besides, when the animal is kept warm, by being wrapped in cotton-wool, its temperature still falls, and death occurs, though more slowly. In his experiments, the author used dogs and rabbits, and generally varnished them with oil, as being less irritating than varnishes which become solid. He finds that both in partial and total varnishing, albumen soon appears in the urine, with epithelium and young cells. The appearance of albumen was always the first phenomenon, and occurred before any functional disturbance was visible. The facts seem to be that there is in the blood some poison which first attacks the kidneys, and produces inflammation there. The blood of an animal which has been treated in this way, when transfused into a healthy animal, produced temporary albuminuria. This is what we should expect, for the supposed poison is in the sound animal diluted by the existing blood, and is not, as in the varnished animal, being continually produced. If these views are correct, then we ought to hesitate to adopt varnishing as a method of treatment in man. Senator has recommended it in order to reduce the temperature in fevers, but it does not seem to be so effective in men as in animals, and, if it is, then its effect on the kidneys is a serious drawback.—*Glasgow Med. Journal*, Jan. 1876, from *Virchow's Archiv*, vol. lxiv. pt. 1.

31. *Transfusion of Blood in the Insane.*—There have been several trials of this made at the asylums in Italy, and Dr. Alfred Voisin, in the *Gazette des Hôpitaux* for December 21, gives an account of a case so treated by him at the Salpêtrière.

Chronic insanity in its simple form, he observes, may at last, in consequence of insufficient alimentation, give rise to a kind of slow inanition and a changed condition of the blood, which shows itself by pallor, transparency of the skin and mucous membranes, flaccidity of the muscles, œdema of the extremities unaccompanied by albumen, a special odour of the breath and skin, an appearance of languor, and the production of eschars on the sacrum and elbows. The blood of such patients exhibits changes which consist in a greater paleness when seen issuing from a prick of the finger, and sometimes in the separation of the drop of blood into a clear and coloured portion. Under the microscope the mass of the globules is found separated into islets, surrounded by clear spaces, and without any increase in the number of the white globules.

This secondary morbid condition usually resists all treatment, the patient gradually getting worse until the formation of eschars leads to his death.

After having witnessed such a termination, Dr. Voisin resolved to give a trial to transfusion. The first patient upon whom it was performed was not a fair case, as numerous eschars had already formed, which soon proved fatal; but the second case occurred in a woman forty-one years of age, the subject of profound suicidal melancholia, with indisposition to eat, and whose blood exhibited the appearances above described, and which are a sure sign of the imminence of eschars. By inadvertence, twenty grammes of human blood were injected into the cellular tissue at the bend of the elbow, instead of into the vein, producing a considerable thrombus. This soon subsided, and in a day or two afterwards eighty grammes of blood were thrown into the median vein. The success was remarkable. Even the injection into the cellular tissue led to a diminution of the œdema and obstinate constipation, while after the injection of the eighty grammes, which was borne without inconvenience, these two conditions disappeared at once, while the patient soon recovered her appetite, and, from being indisposed to move at all, was found willing to walk out of doors. Her mental condition was still the same; but her improved health enabled her to take morphia in much-increased doses; and under the use of this she has lost all disposition to suicide, is able to attend to her domestic duties, and has recovered her appetite. Dr. Voisin believes it is only in the direction of its influence on the bodily health, and not as a curative agent in insanity, that good is to be looked for from transfusion.

At a meeting of the Paris Société de Médecine (*Gaz. des. Hôp.*, January 13), Dr. Voisin stated that he had then two patients under treatment by injecting forty-five or fifty grammes of sheep's blood into the cellular tissue at intervals of some days, having been induced to pursue this practice, not only by the advantage which had ensued upon the accidental injection related above, but also by the fact that it had been recommended by several practitioners who had tried it. The cases, at the time of the report, were still under treatment, but decided advantage had followed the procedure, giving reason for hopeful expectations.—*Med. Times and Gaz.*, Jan. 29, 1876.

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32. *Auscultation of the Mouth and the Buccal Râle.* By E. GALVAGNI, of Bologna.—On placing the ear near the mouth of patients we often hear a fine mucous or crepitat râle. The impression at first is that this râle originates in the larynx, so great is its purity and intensity; and it is often difficult to convince people that it has its source in the finer bronchi or lung substance. But various considerations lead to this conclusion. The râle may be heard in cases where similar râles are to be detected by auscultation; and though the buccal râle is in these cases drier, sharper, and of higher pitch, still the characters of the mouth as a resonance-chamber are sufficient to account for this. Again, these sounds are sometimes inaudible on auscultating the trachea, although loud enough near the mouth. They are also occasionally heard when no râle can be found by ordinary auscultation of the chest. The reason of this may be that, in these cases, the râle originates in the central parts of the lung, and is damped before reaching the chest well, the lung-tissue being a bad conductor —or the râle may at its seat of origin be a very weak one, but reinforced by the resonance-cavities of the mouth and trachea, just as Helmholtz's resonators reinforce tones. The shape of the mouth as a resonator will thus have an important effect on the character of these râles. This is further manifested by the fact that the same râle has a different sound when the person breathes through the mouth or the nose. The author has observed these râles chiefly in cases of phthisis pulmonalis. They are loudest where cavities exist, but may be present in any stage. This sign is of great importance as a diagnostic means in the earliest stages, in which it may be the only sign present. Phthisical patients often refer spontaneously to the peculiar sound which they hear. The author has further observed it in one case of pneumonia, and that a complicated case, but it is generally absent in this disease. It was present in four cases of capillary bronchitis, and one of acute tuberculosis with capillary bronchitis. He found it also in a case of pleuritic exudation, in which the sputum indicated the presence of some affection of the lung, but the exudation prevented its diagnosis.—*Glasgow Med. Journ.*, Jan. 1876, from *Stricker's Medizinische Jahrbücher*, Part 3, 1875.

33. *Morbus Erronum.*—Dr. GREENHOW showed to the Clinical Society of London (Jan. 14) a patient presenting such marked pigmentation of the skin that he had been sent to the Middlesex Hospital as a case of Addison's disease. He was a pauper, about sixty years of age, and doubtless had long been exposed to the influences of dirt and vermin. Most of the regions chiefly affected in Addison's disease were here very deeply pigmented, but some symptoms which might be attributed to constitutional disturbance—*e. g.*, vomiting and breathlessness—were accounted for by cardiac disease. Possibly some cases erroneously described as Addison's disease, without supra-renal affection, were examples of this kind of pigmentation, which Dr. Greenhow proposed to call "morbus erronum," or "vagabond's disease." The discoloration, however, was more mottled and less uniformly distributed than in Addison's disease. Moreover, the face and hands were the least discoloured, and repeated applications of detergents had diminished considerably the depth of tint. The president inquired whether there was any pigmentation of the buccal mucous membrane or of the eyelids. Dr. Greenhow replied that there was faint pigmentation of the buccal membrane, and remarked that this was not peculiar to Addison's disease.

SURGICAL PATHOLOGY AND THERAPEUTICS, AND OPERATIVE SURGERY.

34. *Pathology and Operative Treatment of Hip Disease.*—The Nos. of the *Edinburgh Medical Journal* for January and February last contain an interesting paper on this subject by Mr. THOS. ANNANDALE, Surgeon to the Royal Infirmary. He thus summarizes his views regarding the pathology and operative treatment of this affection:—

(1) That although hip disease may commence in the synovial membrane or pelvic bone, it originates most frequently in the head of the femur.

(2) That the early, sure, and safe detection of the exact condition of a diseased hip or other joint, when symptoms of suppuration are present or are doubtful, by means of an antiseptic exploratory incision, is a valuable improvement and aid in the treatment of joint affections.

(3) That the early excision of the head of the femur, when diseased, is the treatment most likely to check the progress of hip disease, and to cause the patient's recovery, with a movable and useful limb.

(4) That, therefore, when signs of suppuration exist in connection with hip disease, an exploratory incision should be made, and the condition of the joint determined.

(5) That if the articular surfaces are found to be unaffected, means should be used to favour the free escape of pus or other fluid from the joint, and care taken to keep the articulation perfectly at rest.

(6) That if the articular cartilage of the head of the femur is found to be destroyed, and the disease is limited to this portion of bone, excision should be at once performed by sawing through its neck.

(7) That if the disease affects more than the head of the femur, this portion of bone, together with the neck and great trochanter, should be excised; and any diseased portion of the acetabulum also taken away.

(8) That in all operations on the hip or other joints, antiseptic precautions should be carefully employed during the operation, and until the wound is healed, as this treatment is the most certain known means of lessening the mortality.

35. *Amputation through the Hip-joint.*—Two highly interesting cases of this operation by E. S O'GRADY, Surgeon to Mercer's Hospital, are recorded in the *Dublin Journ. Med. Sci.* for January of the present year. Both cases were very unpromising, but the result was satisfactory. In the first case the disarticulation through the hip was subsequent to amputation through the